

Sequential Diversity Imaging

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Abstract

Diversity imaging uses two or more diverse images of an object to enhance the detected images and/or to improve the image quality of an optical system. The method estimates both the unknown object and the parameters of any disturbances in the optical system. The estimated parameters can be used to control an adaptive optic in the optical system so as to sharpen the image. In this invention we use time-sequential images from such an optical system and time sequential diversities to develop control signals for the adaptive optic. We show that the required sequential diversities are the sequential changes in the adaptive optic.

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